UNITED
NATIONS

E

Economic and Social Council

Distr.
GENERAL

E/C.10/AC.3/1994/4
12 January 1994

ORIGINAL: ENGLISH

COMMISSION ON TRANSNATIONAL CORPORATIONS
Intergovernmental Working Group of
Experts on International Standards
of Accounting and Reporting
Twelfth session
Geneva, 7-15 March 1994
Item 5 of the provisional agenda*

ENVIRONMENTAL DISCLOSURES: INTERNATIONAL SURVEY OF CORPORATE REPORTING PRACTICES

Report of the UNCTAD secretariat

SUMMARY

The United Nations through its Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting has been concerned for a number of years with accounting and reporting for environmental matters by transnational corporations. This concern resulted in recommendations by the Working Group in 1991 of standards for environmental accounting and reporting and a survey in 1992 of environment-related disclosures contained in the annual reports and accounts of 222 transnational corporations. Since the publication of this survey, environmental concerns have gained even greater prominence, as evidenced by the United Nations Conference on Environment and Development, held at Rio de Janeiro, Brazil, in June 1992. The purpose of the present survey is to update the earlier survey. In particular, it aims to assess the extent to which major transnational corporations are, or are not, disclosing information regarding their impacts upon the environment. Regrettably, this report concludes that, to a great extent, there is insufficient evidence to suggest that there has been an improvement upon the previous results; that is, the quality of the information provided to users of financial statements and related annual reports has not improved.

* E/C.10/AC.3/1994/1.

CONTENTS

		Paragraphs	Page
INTRODUCTION		1 - 6	3
I.	SUMMARY OF FINDINGS	7 - 9	4
II.	DISCLOSURE OF POLICIES AND FINANCIAL INFORMATION CONCERNING THE ENVIRONMENT	10 - 33	7
	A. Environmental targets, standards and performance	14 - 19	9
	B. Legal proceedings and information in the notes to the accounts	20 - 27	12
	C. Financial expenditures	28 - 33	16
III.	DESCRIPTION OF ACTIVITIES WHICH HAVE AN IMPACT ON THE ENVIRONMENT	34 - 49	19
	A. Products and services	36 - 39	21
	B. Research and development activities	40 - 42	21
	C. Capital investment activities	43 - 45	22
	D. Operating and production activities	46 - 47	23
	E. Remediation activities	48 - 49	24
IV.	DISCLOSURES OF OTHER ENVIRONMENTAL INFORMATION	50 - 57	25
	A. Sustainable development	52 - 53	27
	B. Technology transfers	54	27
	C. Environmental auditing	55 - 56	28
	D. Employee training	57	28
V.	CONCLUSIONS AND RECOMMENDATIONS	58 - 62	29

Annexes

I.	CORPORATIONS INCLUDED IN THE SURVEY	31
II.	SUMMARY BY COUNTRY OF DOMICILE FOR THE CORPORATIONS IN THE SURVEY	36

INTRODUCTION

1. This report is an update of an earlier survey 1/ concerning the disclosure of environmental related information in the published financial accounts and annual reports of corporations. The current survey sampled disclosures by 203 corporations in different industries, and the findings are contained in chapters II, III and IV of this report.

2. The sample was chosen from seven major global industries: chemicals; forestry and forestry products; industrial and farm equipment; metals and metal products; motors and vehicle parts; petroleum refining; and pharmaceutical, soaps and cosmetics. These industries were selected because of the belief that they have a significant impact upon the environment and therefore were more likely to have environment related information to disclose. Six of the seven industries were also included in the earlier report (industrial and farm equipment was not included), thus allowing comparisons to be drawn between the two surveys.

3. The population consisted of all corporations in those industries contained in the Fortune magazine listing, "Global 500", that was published in July 1993. This resulted in a sample of 277 corporations who were requested to supply their latest available English language annual reports and accounts. Two hundred and three corporations responded, as detailed in annex I. While the overall response rate was 73 per cent, this varied considerably across the seven industries from a low of only 37 per cent in the case of petroleum refining corporations to a high of 97 per cent for pharmaceutical, soap and cosmetics corporations. Of these corporations, 92 per cent (187) provided their annual reports and accounts for the financial year ending some time in 1992 and 8 per cent (16) provided their reports for the financial year ending at some point during the first three months of 1993. The corporations were distributed over a large number of countries, as shown in annex II.

4. The survey methodology was designed to capture the environmental information disclosures normally made to shareholders and any other groups interested in the general operations of the corporation. Therefore, corporations were asked to provide the English-language version of their latest annual report and accounts as normally provided to shareholders. A number of United Kingdom corporations provided two documents - the annual accounts and a separate report of activities. In these cases, the combined package is generally provided to shareholders and is equivalent to the more normal annual report and accounts, and therefore both documents were examined. A number of United States corporations instead provided both their annual report and their annual report on Form 10-K that is required to be filed with the Securities and Exchange Commission. Only when the two documents were an integral package were both considered. When, instead, the two documents were provided separately, only the annual report and accounts were examined. Likewise, when other corporations sent additional reports, such as employee reports, these were not considered for the purposes of the report.

5. A total of 10 per cent (20) of the corporations, mainly from chemicals (5), forestry, petroleum and pharmaceutical (4 each), stated that a separate

environment report was available upon request. These were also collected and were found to vary considerably from a single page statement describing the corporate environmental policy to detailed information on air, water and land emissions by individual plants and total company-wide emissions by type of chemical, or air emission regulation compliance rates per plant. However, as these statements were not automatically sent to all shareholders with the annual report and accounts, they were not analysed any further and are not included in the survey.

6. A survey instrument was designed to capture the type and extent of environmental disclosures made in both the financial statements and anywhere in the annual report: whether discursive, quantitative or financial; and whether examples of practices or exhaustive statements. The survey instrument was very largely based upon the one employed in the previous survey 2/ which had been, in turn, based upon the Working Group's recommendations for environmental accounting and reporting. 3/ However, in the light of the results obtained from the earlier survey some amendments were made to the survey instrument. As such, the final survey form included information disclosures relating to the following areas:

(a) Policies and views on environmental demands;

(b) Major environmental issues, programmes and policies and views on environmental demands;

(c) Environmental targets, standards and output measures;

(d) Legal proceedings and information in the notes to the accounts;

(e) Financial expenditures;

(f) Products and services;

(g) Research and development activities;

(h) Capital investment activities;

(i) Operating and production activities;

(j) Remediation activities;

(k) Information in notes to financial statements (accounts);

(l) Other pertinent environmental information.

I. SUMMARY OF FINDINGS

7. Table 1 reports the overall level of disclosure for each major category of environmental information for each of the industries examined as well as for the entire sample. From this it appears clear that virtually all corporations were aware of the need to report information regarding their impact upon the

Table 1. Environmental disclosures: overview of disclosures

Items disclosed	All Corporations (203)		Chemicals (38)		Forestry (17)		Industrial Equipment (25)		Metals (40)		Motors (36)		Petroleum (19)		Pharmaceuticals (28)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Policies & views on environmental demands	121	60	35	92	11	65	10	40	20	50	16	44	14	74	15	54
Major environmental issues & programs	54	27	12	32	6	35	5	20	10	25	5	14	7	37	9	32
Targets, standards & output measures	92	45	21	55	10	59	7	28	20	50	10	28	12	63	12	43
Legal proceedings	50	25	14	37	3	18	5	20	3	8	6	17	8	42	11	39
Financial expenditures	57	28	19	50	5	29	3	12	14	35	2	6	7	37	7	25
Products & services	119	59	25	66	11	65	17	68	24	60	25	56	11	58	11	39
R & D activities	98	48	24	63	4	24	12	48	20	50	17	47	12	63	9	32
Capital investment activities	63	31	14	37	8	47	3	12	15	38	3	8	14	74	6	21
Operating & production activities	57	28	12	32	9	53	4	16	10	25	8	22	8	42	6	21
Remediation activities	29	14	4	11	3	18	4	16	6	15	4	11	7	37	1	4
Information in notes	54	27	13	34	2	12	5	20	7	18	7	19	11	58	9	32
Other information	57	28	18	47	10	59	3	12	7	18	7	19	6	32	6	21
Number of corporations which disclosed some environmental information	196	97	38	100	16	94	24	96	38	95	33	92	19	100	28	100

Note: Figures in parentheses below the column headings indicate total number of corporations responding to survey.

environment. Indeed, the number of corporations that provided at least some environment-related information appears to have substantially increased over the last two years. While the sample is not identical to that used in the earlier survey, the number of respondents providing some environment-related information had increased by 11 per cent, from 86 per cent to 97 per cent. The entire sample of corporations from the chemicals, petroleum and pharmaceutical sectors gave at least some information. The motors sector remained the industry least likely to provide information, although even here 92 per cent of the sample said something, compared to only 76 per cent in the previous study.

8. When the 12 major categories of different types of information are examined, a picture of considerable diversity emerges. Thus, while the overall level of information provision may be high, there are very great differences in the amount and types of information provided across the sample of corporations. In only two areas did the majority of corporations provide some information, namely with respect to their environmental policies and views on environmental demands (60 per cent) and on information on the environmental impacts of the products or services they produce (59 per cent). As will be described further below, such information was typically discursive and often very limited, being little more than general statements of good corporate citizenship or general advertising-related product statements. In contrast, far fewer corporations provided quantitative or financial information. For example, only 28 per cent provided any details of their financial expenditures while only 27 per cent provided any information in the notes to the accounts. Other areas where information provision was relatively rare were with regard to remediation activities (14 per cent), legal proceedings (25 per cent), and operating and production activities (28 per cent).

9. Some very large differences also emerged across the various industries. The biggest of these were with regard to the information provided on capital investment activities, ranging from a high of 74 per cent for petroleum to a low of only 8 per cent in the case of motors, and environmental policy statements, ranging from an extremely high 92 per cent in the case of the chemical industry to a low of 40 per cent for industrial and farm equipment. In contrast, much more consistency was found in the case of disclosures regarding major environmental issues (varying from 14 to 37 per cent), and product information (varying from 39 to 68 per cent). There were three industries where only one of the categories of information was reported by a majority of corporations. These three were 56 per cent of motors enterprises reporting product-related information, 68 per cent of industrial and farm equipment manufacturers again reporting product-related information and 54 per cent of pharmaceutical corporations reporting environmental policies. In contrast, information regarding 5 of the 12 categories were disclosed by a majority of the chemicals and forestry corporations while information regarding 6 of the 12 categories were reported by the majority of the petroleum corporations.

II. DISCLOSURE OF POLICIES AND FINANCIAL INFORMATION CONCERNING THE ENVIRONMENT

10. The sample corporations generally took one of two possible approaches to the disclosure of environmental information. One approach was to provide all, or at least substantially all, their environment-related disclosures in a clearly defined section. This took the form of either a separate environment section or a clearly defined part of the review of operations. The alternative approach was to attempt to integrate such disclosures throughout the report so, for example, when research and development (R & D) projects were being discussed any relevant environment-related R & D information was disclosed alongside other R & D information.

11. While the distinction must be somewhat arbitrary, those corporations that reported environmental information in a separate section were further divided into two groups: those who disclosed a reasonable amount of information that was then analysed under each of the relevant topics; and those who reported only a general description of the main issues affecting them or the major programmes undertaken. As shown in table 2, 27 per cent of the sample fell into this last category. The majority of these disclosed information on the major programmes undertaken with a clear emphasis being placed upon the three areas of recycling, emissions - in particular either emissions into the air or general, unspecified emissions; and general "environmental protection" measures. As might be expected, these disclosures were generally fairly brief (on average approximately one third of a page long), discursive statements describing examples of actions undertaken by the entire corporation.

12. A small majority of the corporations provided a statement of their overall environmental policy (52 per cent or 105 corporations). The incidence across industries varied greatly. Reflecting the potential for adverse environmental impacts from the production processes and technologies employed, although perhaps not from the final products themselves, the industry with the highest proportion of corporations disclosing policy statements was chemicals at 84 per cent while the lowest incidence, at only 31 per cent, was the motors industry. Despite the difference in the incidence rate, the actual disclosures made varied only slightly across the industries with most being brief, discursive, company-wide statements referring to general environment protection measures or statements designed to reassure the reader that the corporation is "environmentally friendly". When specific areas were mentioned these referred most commonly to products (especially in the case of the chemical industry), recycling (most common in reports from the motors group), and health and safety (again, most common in the chemicals sector).

13. Of perhaps greater interest were the statements from corporations regarding environmental demands and legislation. While these were not provided by a large number of corporations, the majority expressing any opinion were clearly worried about environmental demands. Particular concern was expressed about the potential adverse impact of ever increasing legislation, as evidenced by the fairly typical example of BASF (Germany, chemicals) which argued that: "innovation must not be choked by regulations ... which must be reasonable so competitiveness is not jeopardized", or Mead (United States of America,

Table 2. Major programmes, policies and views on the environment

Items disclosed	All Corporations (203)		Chemicals (38)		Forestry (17)		Industrial Equipment (25)		Metals (40)		Motors (36)		Petroleum (19)		Pharmaceuticals (28)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Major environmental issues & programmes	54	27	12	32	6	35	5	20	10	25	5	14	7	37	9	32
Of which:																
Main issues affecting corporation	13	6	3	8	2	12	1	4	1	3	3	8	1	5	2	7
Major programmes undertaken	43	21	9	24	5	29	4	16	9	23	2	6	7	37	7	25
Policies & views on environmental demands	121	60	35	92	11	65	10	40	20	50	16	44	14	74	15	54
Of which:																
Policy statements	105	52	32	84	10	59	9	36	15	38	11	31	13	68	15	54
Views on societal demands	15	7	2	5	4	24	1	4	3	8	3	8	2	11	-	-
Views on legislation	23	11	7	18	5	29	1	4	4	10	4	11	1	5	1	4
Other political statements	8	4	1	3	1	6	-	-	3	8	1	3	2	11	-	-

Note: Figures in parenthesis below the column headings indicate total number of corporations responding to survey.

forestry) which argued that meeting environmental laws and regulations was "like running a race without a finishing line".

A. Environmental targets, standards and performance

14. The most important environmental information that a corporation can provide is information about its actual impacts upon the environment. While the policies of the corporation and the activities it undertakes are obviously important, what must be most significant is the success or failure of the corporation in reducing any adverse environmental impacts of its operations. Table 3 reports upon the disclosures made in the areas of targets, standards and output measures. From this it can be seen that 45 per cent of the sample provided at least some information in this area, with the proportion varying across the industries from a high of 63 per cent for petroleum corporations to a low of only 28 per cent for both motors and industrial and farm equipment.

15. Information on targets were provided by 28 per cent (56) of the corporations. It was particularly noticeable that this type of information was far more commonly found in the petroleum industry, being provided by 58 per cent of the sample corporations. The second highest incidence of disclosures was only 34 per cent, by the chemicals industry, followed by 28 per cent for the industrial and farm equipment sector. The information on targets for environmental improvements fell into two categories: information on targets or goals developed internally by the corporation; or, information on targets laid down in legislation or by other external bodies. In this area, the most common disclosures were very brief statements describing the corporation's success in meeting relevant legislation. Typically, these were discursive statements covering the entire corporation for the present year, as exemplified by Johnson and Johnson (United States of America, pharmaceutical) which stated that:

> "The company believes that its operations comply in all material respects with applicable environmental laws and regulations";

or Statoil (Norway, petroleum) which similarly stated that:

> "With very few exceptions, Statoil businesses met regulatory requirements on polluting emissions from their daily operations".

16. Closely associated with the use of external targets is the use of benchmarking as a means of determining suitable corporate practices and targets based upon external yardsticks or best practices. While such an approach is being increasingly advocated as a means of improving corporate performance, there was no evidence in any of the reports examined to suggest that this was an approach that was being used in practice. Internal targets were, instead, generally of two types. Firstly, a number of corporations provided very general targets for the entire corporation or division covering, in particular, air and water emissions or, more commonly, simply just unspecified "emissions". When, instead, more detailed targets were provided, they generally related to specific examples rather than all relevant activities, very often for only a part of the

Table 3. Targets, standards and output measures

Items disclosed	All Corporations (203)		Chemicals (38)		Forestry (17)		Industrial Equipment (25)		Metals (40)		Motors (36)		Petroleum (19)		Pharmaceuticals (28)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Targets, standards & output measures	92	45	21	55	10	59	7	28	20	50	10	28	12	63	12	43
Targets:																
Total number	56	28	13	34	4	24	7	28	8	20	6	17	11	58	7	25
Of which:																
Description of internal targets	13	6	5	13	-	-	1	4	3	8	-	-	3	16	1	4
Description of external targets	15	7	4	11	2	12	3	12	2	5	-	-	3	16	1	4
Success in achieving internal targets	14	7	5	13	-	-	-	-	3	8	1	3	3	16	2	7
Success in achieving external targets	27	13	5	13	2	12	5	20	2	5	6	17	4	21	3	11
Of which:																
Discursive	41	59	5	26	3	75	6	67	8	80	5	71	8	62	6	86
Quantitative	28	41	14	74	1	25	3	33	2	20	2	29	5	38	1	14
Past years	6	9	5	26	-	-	-	-	-	-	-	-	1	8	-	-
Present year only	47	68	7	37	4	100	7	78	6	60	5	71	11	85	7	100
Future years	16	23	7	37	-	-	2	22	4	40	2	29	1	8	-	-
All of the companies	37	54	11	58	3	75	1	11	5	50	3	43	9	69	5	71
Only part of the companies	32	46	8	42	1	25	8	89	5	50	4	57	4	31	2	29
Example	43	62	10	53	2	50	8	89	4	40	4	57	10	77	5	71
Inclusive	26	38	9	47	2	50	1	11	6	60	3	43	3	23	2	29

(continued)

Table 3. Targets, standards and output measures (continued)

Items disclosed	All Corporations		Chemicals		Forestry		Industrial Equipment		Metals		Motors		Petroleum		Pharmaceuticals	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Description of impacts:																
Total number	63	31	17	45	9	53	2	8	15	38	7	19	7	37	6	21
Of which:																
Recycling carried out	34	17	2	5	9	53	2	8	10	25	5	14	3	16	3	11
Emission levels	28	14	16	42	2	12	1	4	3	8	-	-	4	21	2	7
Energy used	12	6	2	5	1	6	-	-	4	10	1	3	3	16	1	4
Waste or by-products	11	5	7	18	-	-	-	-	3	8	1	3	-	-	-	-
Other disclosures	4	2	1	3	-	-	-	-	2	5	1	3	-	-	-	-
Of which:																
Discursive	27	30	7	25	3	25	1	33	9	41	3	38	3	30	1	17
Quantitative	62	70	21	75	9	75	2	67	13	59	5	63	7	70	5	83
Past years	21	24	12	43	3	25	-	-	3	14	-	-	3	30	-	-
Present years only	62	70	14	50	7	58	3	100	19	86	7	88	6	60	6	100
Future years	6	7	2	7	2	17	-	-	-	-	1	13	1	10	-	-
All of the categories	37	42	10	36	5	42	-	-	12	55	6	75	3	30	1	17
Only part of the categories	52	58	18	64	7	58	3	100	10	45	2	25	7	70	5	83
Examples	68	76	17	61	8	67	3	100	19	86	7	88	9	90	5	83
Inclusive	21	24	11	39	4	33	-	-	3	14	1	13	1	10	1	17

Note: Figures in parentheses below the column headings indicate total number of corporations responding to survey.

corporation (typically a product-based division), as exemplified by British Petroleum (BP) (United Kingdom, petroleum):

> "We have set targets that, from a 1990 base, BP Chemicals will halve its hydrocarbon emissions to the atmosphere and reduce by two-thirds its emissions to water by 1997".

17. Of the sample 31 per cent went a stage further and provided some information on their environmental impacts. Again, the level of disclosure varied significantly across the sample from a high of 53 per cent in forestry and forest products to only 8 per cent for industrial and farm equipment. The information disclosed often closely reflected the activities of that industry. For example, the forestry corporations all disclosed at least some information on recycling activities, typically quantitative information describing the amount of recycled paper being used either by the entire corporation or, very often, only by specific divisions or even individual plants or products.

18. Recycling information was also the information most often given by the metals industry: very often quantitative details of the amounts of metals recycled, although again generally only instances or examples of particular metals (generally steel or aluminium) rather than all inclusive statements describing all recycling activities. The only other information which more than 20 per cent of the sample corporations disclosed was information on emission levels by the chemicals sector (42 per cent) and petroleum sector (21 per cent). The disclosures by the chemical industry were particularly interesting, with many of the United States corporations referring to either Environmental Protection Agency (EPA) reportable emissions or their 33/50 Programme, as illustrated by Ethyl (United States of America, chemicals):

> "Since 1987, Ethyl has reduced total EPA-reportable emissions by 45 per cent, or 8.5 million pounds, at its United States plants. Air emissions have been reduced by 44 per cent during the same period. Significant results have been achieved in the EPA's Industrial Toxics Project, ... Ethyl achieved a 48 per cent reduction by year-end."

19. Several European chemical corporations instead used graphs as a simple way to provide a significant amount of information. For example: Norsk Hydro (Norway, chemicals) gave a five-year graph of emissions into the air from aluminium production in Norway; Huls (Germany, chemicals) provided eight-year graphs of emissions of organic and inorganic gases; Hoechst (Germany, chemicals) graphed 12 years of sulphur dioxide emissions from its domestic plants; and Ciba-Geigy (Switzerland, chemicals) used pie-diagrams to provide information on off-gas emissions.

B. Legal proceedings and information in the notes to the accounts

20. With increasingly stringent environmental laws being enforced in many countries, an alternative measure of the impact of a corporation upon the environment may be found in the information disclosed about legal proceedings. While the correlation is obviously less than perfect, it seems reasonable to

assume that there is some relationship between legal proceedings and adverse environmental impacts. Table 4 reports on the disclosure of information about legal proceedings and also information in the notes to the accounts.

21. These two areas are considered together because information on legal proceedings was generally reported in the notes to the accounts. From table 4 it is clear that 13 per cent (27) of the sample disclosed the amount of environment-related costs, liabilities or provisions in the notes to the accounts. While this is still only a relatively small proportion of the sample, the results indicate that such disclosures are becoming more common, with the previous survey finding a disclosure rate of only 9 per cent. These disclosures were generally not exhaustive but instead typically related only to legal proceedings or legislative requirements, although they may be fairly extensive and informative in this context, as exemplified by Monsanto (United States of America, chemicals):

> "Monsanto spent $46 million in 1992 for remediation of Superfund and other waste disposal sites. Most of these expenditures related to the Chemicals Group, and similar or greater amounts can be expected in future years. Monsanto's policy is to accrue these costs in the accounting period in which the responsibility is established and the cost is estimable. At December 31, 1992, Monsanto's Statement of Consolidated Financial Position included an accrued liability of $242 million for the remediation of identified waste disposal sites. Because of the uncertainties associated with remediation activities, Monsanto's future expenses to remediate these sites could approximate an additional $300 million. These potential expenses would be expected to be incurred over the balance of the decade ...".

22. In a slightly smaller number of cases a combination of remediation and other costs were disclosed, as exemplified by Air Products (United States of America, chemicals):

> "The amounts charged to earnings on an after-tax basis related to environmental protection totalled $28.5 million, $25.5 million, and $19.3 million for 1992, 1991, and 1990, respectively. These amounts represent expenses for compliance with environmental laws, as well as remedial activities, and costs incurred to meet internal company standards.
>
> "It is the company's policy to accrue environmental investigatory and non-capital remediation costs when it is probable that a liability has been incurred and the amount can be reasonably estimated. The company's balance sheet ... reflects an accrual for investigatory and remediation costs of $26.4 million."

23. However, far more common than statements quantifying either remediation or other costs or liabilities were statements that liabilities exist but are unlikely to be material, as illustrated by Abbott Laboratories (United States of America, pharmaceutical):

> "While it is not feasible to predict the outcome of such pending claims, proceedings, investigations and remediation activities with

Table 4. Legal proceedings

Items disclosed	All Corporations (203)		Chemicals (38)		Forestry (17)		Industrial Equipment (25)		Metals (40)		Motors (36)		Petroleum (19)		Pharmaceuticals (28)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Legal proceedings	50	25	14	37	3	18	5	20	3	8	6	17	8	42	11	39
Description of:																
Superfund sites	36	18	10	26	3	18	5	20	2	5	5	14	3	16	8	29
Other legal proceedings	28	14	9	24	2	12	1	4	1	3	3	8	6	32	6	21
Information in notes	54	27	13	34	2	12	5	20	7	18	7	19	11	58	9	32
Of which:																
Assessing policies	20	10	8	21	1	6	-	-	2	5	1	3	6	32	2	7
Quantified amounts	27	13	8	21	1	6	1	4	4	10	4	11	5	26	4	14
Statement that cannot quantify liabilities	8	4	5	13	-	-	1	4	-	-	-	-	-	-	2	7
Statement that liabilities immaterial	36	18	6	16	1	6	4	16	4	10	7	19	7	37	7	25

Note: Figures in parentheses below the column headings indicate total number of corporations responding to survey.

certainty, management is of the opinion, with which its General Counsel concurs, that their ultimate disposition should not have a material adverse effect on the Company's financial position."

24. However, a small number of corporations did warn that such liabilities could be material, as evidenced by Navistar (United States of America, motors):

"Investigations into the nature and extent of cleanup activities under the Superfund law are being conducted at two sites formerly owned by the Company. The eventual scope, timing and cost of such activities as well as the availability of defense to any such claims, and possible claims against third parties and insurance companies are not known and cannot be reasonably estimated; however, substantial claims could be asserted against the Company."

25. Accounting policies were disclosed by 10 per cent (20) of the sample, mainly in the chemicals and petroleum industries. This represented an even larger relative increase from the previous survey, which found a disclosure rate of only 4 per cent. While these disclosures covered a number of issues, the clear majority referred not to the treatment of costs or expenses, but instead to provisions or liabilities and, in many cases, they referred only to remediation activities, as also illustrated by Air Products and Monsanto, above.

26. From these examples it is clear that much of the information contained in the notes to the accounts referred not to general expenditures, or even all remediation activities, but instead to those prompted by legal proceedings or legislative requirements. Information on legal proceedings and laws almost inevitably appeared in either the notes or the management discussion, and often in both places, with the management discussion tending to give slightly more information. When disclosures in both of these locations, and indeed anywhere else in the annual report, were examined, it can be seen that only 25 per cent (50) of the corporations disclosed any information and that the level of disclosures was again highest in the petroleum (42 per cent), pharmaceutical (39 per cent) and chemicals (37 per cent) industries. However, this is far more likely to be due to the fact that these industries are those with the highest potential to pollute than because these corporations are more likely to disclose any relevant information.

27. What is even more apparent than these industry-based patterns is the importance of the country of domicile of the corporation. It is particularly striking that of the 50 corporations disclosing any information, 76 per cent (36) were based in the United States, while, in contrast, only one was based in Japan. What is mainly driving the relatively high level of disclosure in the United States is the Comprehensive Environmental Response, Compensation and Liability Act, commonly referred to as the Superfund Act. The Superfund Act appears to have had an increasing impact upon corporate disclosures, with the proportion of the sample explicitly mentioning Superfund sites, doubling from only 9 per cent in the previous survey to 18 per cent in this one. However, while a relatively high proportion of United States corporations disclosed some information, this was typically both brief (on average, less than one fifth of a page) and descriptive, as referred to above.

C. Financial expenditures

28. One possible indicator of a corporation's commitment to environmental concerns is the amount of money the corporation spends on environmental matters. However, while this provides what might appear to be an objective measure, it is by no means an unambiguous one. This is because it is an input measure or an indicator of the effort expended, rather than what is really required, which is an output measure or indicator of environmental impacts. Indeed, in certain cases there may even be an inverse relationship between expenditures and environmental friendliness, with those corporations who are the worst polluters being those who have to spend the most on reducing or rectifying the adverse consequences of their activities. This is perhaps an important reason for finding that the overall level of information on environment-related expenditures does not appear to have increased since the previous survey was undertaken. Indeed, while the specific areas reported upon are not strictly comparable (financial expenditures in this survey and quantitative information in the previous survey), the evidence suggests that, if anything, the proportion of corporations disclosing financial information has decreased over the last two years.

29. Various types of financial information may be provided covering different types of expenditures, different periods and different parts of the corporation. From table 5 it is apparent that the overall picture is one of considerable diversity across the sample corporations. Provision of any information at all was relatively rare, being provided by only 28 per cent (57) of the corporations. In addition, as has been found for virtually all other areas, there were fairly large differences across the industries examined. As was the case in several other areas, disclosures were most common on the chemicals industry with exactly one-half of all corporations providing some information, while they were least common in the motors (6 per cent) and the industrial and farm equipment industries (12 per cent). When the types of expenditures are examined, then the most common information disclosure across all industries was that of capital expenditures followed in most cases by information on operating costs. Indeed, these were the only two types of expenditures disclosed at all by the forestry industry. When operating cost information was provided it tended to be disclosed alongside information on capital expenditures. Thus, of the 20 corporations that disclosed operating cost information, 16 also disclosed information on capital expenditures. Finding these two types of expenditures together was especially common in reports of German corporations (8 of the 16 corporations) while the majority of the other corporations disclosing both types of information were from either the United States or Switzerland.

30. As discussed above, information on the amounts expended on remediation activities was almost exclusively an American phenomenon and was clearly very largely a result of the Superfund Act. As such, these disclosures were relatively unusual in that they were generally found in the audited part of the annual accounts and report. In contrast, information on capital, operating or research and development expenditures were most often found in the general review of operations or in a separate section entitled "Environment report" or similar title. Disclosing information in the annual review or the unaudited parts of the statement may offer significant advantages to a corporation. In particular, disclosure here may offer the corporation greater flexibility in

Table 5. Financial expenditures

Items disclosed	All Corporations (203)		Chemicals (38)		Forestry (17)		Industrial Equipment (25)		Metals (40)		Motors (36)		Petroleum (19)		Pharmaceuticals (28)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Financial expenditures	57	28	19	50	5	29	3	12	14	35	2	6	7	37	7	25
Of which:																
Total expenditures	14	7	6	16	-	-	-	-	4	10	-	-	3	16	1	4
Capital expenditures	40	20	13	34	5	29	2	8	11	28	1	3	3	16	5	18
Operating costs	20	10	8	21	3	18	-	-	5	13	-	-	1	5	3	11
R & D expenditures	3	1	1	3	-	-	1	4	-	-	1	3	-	-	-	-
Remedial expenditures	13	6	6	16	-	-	1	4	1	3	1	3	3	16	1	4
Past years	26	29	11	32	3	38	-	-	7	33	-	-	5	50	-	-
Present year only	54	60	17	50	3	38	4	100	14	67	3	100	4	40	9	90
Future years	10	11	6	18	2	24	-	-	-	-	-	-	1	10	1	10
All of the corporation	75	83	30	88	7	87	1	25	19	90	2	67	9	90	7	70
Only part of the corporation	15	17	4	12	1	13	3	75	2	10	1	33	1	10	3	30
Examples	22	24	5	15	2	25	3	75	6	29	2	67	1	10	3	30
Inclusive	68	76	29	85	6	75	1	25	15	71	1	33	9	90	7	70

Note: Figures in parentheses below the column headings indicate total number of corporations responding to survey.

what it discloses and how that information is disclosed. Indeed, it appears that many corporations have taken advantage of the greater flexibility they have in deciding what to disclose in the general review of operations. In particular, it is very noticeable that 11 per cent of the disclosures made in this area are disclosures about planned expenditures rather than current or past expenditures. These typically relate to expenditures planned to be made in the next two or three years although in a number of cases the period is unclear, as illustrated by the example of Upjohn (United States of America, pharmaceutical):

> "Environmental compliance costs, including capital expenditures related to future production, have been increasing each year. The company is committed to approximately $40 to $50 million of additional capital spending over the next few years to control air emissions at the company's Kalamazoo production facility. Additional spending at this site is expected in the near future related to groundwater remediation and improved control of surface water discharge."

31. In contrast, 29 per cent of the disclosures related to past periods as well as simply the current year. When this was done, a number of different periods were employed. While the most common period was found to be the last five years, no clear pattern emerged, with many other periods also being used such as "since 1970" or "the past 20 years". In addition, the manner of disclosure varied considerably. Most disclosures were in the form of discursive statements containing a figure for expenditures for the relevant period, as illustrated by Upjohn, above. However, other corporations instead employed graphs or other diagrammatic forms. For example, Rohm and Haas (United States of America, chemicals) employed a graph to illustrate the last five-years' spending on waste-site remediation accruals, capital spending on new environmental protection equipment and the costs of operating and maintaining environmental facilities. Pruessag (Germany, metals) used a pie-diagram to show the areas where costs were incurred (clean air maintenance, water protection, noise prevention, waste and residues management and others).

32. In addition, while the majority of these disclosures referred to expenditures to be made by the entire corporation, 17 per cent of the disclosures referred to expenditures made or planned by only a part of the corporation - in virtually all cases, one product-based division. In addition, 24 per cent of the disclosures referred only to examples of expenditures made or planned by either the entire corporation or relevant parts of the corporation, rather than attempting to provide an exhaustive description, as also illustrated by the example of Upjohn reported above.

33. Even when expenditures for the entire corporation were disclosed, these were often very difficult to interpret. This was because the majority of corporations provided a single figure for "environmental expenditures" and failed to provide any indication of even approximately what areas received attention. When an indication of what the money was spent on was given, the description was most often very general, as illustrated by Fried Krupp (Germany, metals) whose capital expenditures were described in the following terms: "... tangible assets principally for production, quality assurance and pollution control". When specific areas or concerns were mentioned, the most common ones were found to be the control of emissions into the air and into water, both

areas of particular concern to the metals and the pharmaceutical industries. Other specific areas such as health and safety, recycling, noise reduction, solid wastes and hazardous wastes were each mentioned by less than a handful of the corporations in the sample.

III. DESCRIPTION OF ACTIVITIES WHICH HAVE AN IMPACT ON THE ENVIRONMENT

34. Far more common than financial measures or quantified measures of environmental impacts were descriptions of activities in the area of environmental protection or descriptions of environmental impacts. Various types of activities may be described, with the most common areas being capital investments, operating or production related activities, R & D, remediation and information on products or services. Perhaps reflecting the fact that in very many cases the shareholder is also the consumer of the products manufactured, many corporations appear to have taken advantage of the possibility of using their annual reports as a marketing or advertising tool. As such, of these five areas, the one which was most commonly found was information on products and services followed, in descending order of popularity: R & D; capital investment projects; operating or production activities; and, finally, remediation activities.

35. Looking at each of these areas in somewhat more detail, table 6 reports on the number of corporations which reported information in each area. From this it is apparent that 59 per cent (119) of the sample reported information on their products and that, with the exception of the pharmaceutical industry with a disclosure rate of only 39 per cent, the level of disclosure was remarkably consistent across the industries from 56 per cent in the case of motors to 68 per cent for industrial and farm equipment (this being the only area where the disclosure rate was highest for this sector). It should be noted in this context that environmental engineering and services have been ignored and that what is included is information on the environmental impacts of products or services that are not specifically designed to meet an environment-related need.

Table 6. Description of activities

Items disclosed	All Corporations (203)		Chemicals (38)		Forestry (17)		Industrial Equipment (25)		Metals (40)		Motors (36)		Petroleum (19)		Pharmaceuticals (28)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Products & services Total number corporations:	119	59	25	66	11	65	17	68	24	60	20	56	11	58	11	39
Number describing:																
Environmental impacts	84	41	18	47	10	59	9	36	18	45	13	36	8	42	8	29
Impacts of change	50	25	11	29	4	24	10	40	7	18	10	28	5	26	3	11
Of which:																
All of the Corporation	35	26	3	10	7	50	3	16	11	44	9	39	1	8	1	9
Only part of the Corporation	99	74	26	90	7	50	16	84	14	56	14	61	12	92	10	91
R & D activities:	98	48	24	63	4	24	12	48	20	50	17	47	12	63	9	32
Of which:																
All of the Corporation	45	46	14	58	2	50	4	33	9	45	7	41	4	33	5	56
Only part of the Corporation	53	54	10	42	2	50	8	67	11	55	10	59	8	67	4	44
Capital investment activities:	63	31	14	37	8	47	3	12	15	38	3	8	14	74	6	21
Of which:																
All of the Corporation	22	35	6	43	3	38	1	33	4	27	2	67	3	21	3	60
Only part of the Corporation	41	65	8	57	5	62	2	67	11	73	1	33	11	79	3	50
Operating & Production activities:	57	28	12	32	9	53	4	16	10	25	8	22	8	42	6	21
Of which:																
All of the Corporation	13	23	3	25	2	22	-	-	1	10	3	38	2	25	2	33
Only part of the Corporation	44	77	9	75	7	78	4	100	9	90	5	63	6	75	4	67
Remediation activities	29	14	4	11	3	18	4	16	6	15	4	11	7	37	1	4
Of which:																
All of the Corp.	21	72	2	50	2	67	3	75	4	67	3	75	6	86	1	100
Only part of the Corp.	8	28	2	50	1	33	1	25	2	33	1	25	1	14	-	-

Note: Figures in parenthesis below the column headings indicate total number of corporations responding to survey.

/...

A. Products and services

36. The majority of the disclosures made in this area referred to the impacts of existing products, although approximately one third of all disclosures instead described new products or improvements in products and described the impacts of these changes.

37. While the actual areas covered varied considerably, as discussed below, the majority of the disclosures (88 per cent) occurred in the review of operations; and most referred only to the products made by one or more divisions rather than trying to provide an overview covering the entire corporation. This is perhaps inevitable given that many corporations produce so many different types of products; it is noticeable that the industries where an overview was most commonly provided were those where the products manufactured tend to be less diversified, namely forestry, metals and motors.

38. As might also be expected, the information disclosed was, almost without exception, discursive or qualitative and generally self-congratulatory and it was only really in the motor industry where quantitative information was provided, namely, information on the emission levels of their automobiles or motorbikes. Likewise, the disclosures made concerned only a limited number of products of the relevant divisions and, as such, may be viewed as being examples only, although presumably the better examples have generally been chosen.

39. Although a number of corporations, most noticeably in the forestry and industrial and farm equipment industries, provided very extensive disclosures, on average the amount of space devoted to product-based information was very small, only one fifth of a page; in many cases, only one or two sentences were provided. The disclosures made cover a very wide range of products although a few themes kept reappearing. The single largest number of references were made to various aspects of vehicles and engines, both with regard to emission levels from the motors and industrial and farm equipment manufacturers and the lightweight nature of the metals used in the case of the metals industry. The second most common area was the issue of recyclability which was clearly of great concern to the forestry industry with regard to the use of recycled paper, the metals industry with regard to aluminium and steel and the motors industry with regard to the increasing use of recyclable components. Other common areas of concern were the use of chlorofluorocarbons (CFCs), with chemical corporations reporting on the development of replacements, and motors and industrial and farm equipment manufacturers describing the use of alternatives. Energy use was also mentioned by a number of corporations in different industries, as was the decrease in the amount of packaging being used by manufacturers.

B. Research and development activities

40. The second most common area of activities to be described concerned R & D activities, mentioned by 48 per cent (98) of the corporations. As was found for several other areas, the industries where disclosures were most common (at 63 per cent) were petroleum and chemicals, while disclosures were least common in the forestry industry (at 24 per cent). From these figures it appears that

descriptions of environment-related R & D has increased in popularity since the earlier survey was undertaken which found that 39 per cent of the sample disclosed some R & D related information. However, there is little or no evidence to suggest that the quality of the disclosures has increased. While approximately one half of the disclosures made were specific to one or a limited number of divisions, the other half attempted to give an overview of activities of the entire corporation. In virtually all cases the disclosures referred only to specific examples of activities rather than exhaustive or all-inclusive descriptions. In addition, they almost without fail referred only to activities of the current year rather than giving information on planned activities. Not only were the statements made qualitative or descriptive, but they were typically also very short, on average only one fifth of a page, and in most cases considerably shorter.

41. Fairly typical illustrations of the types of disclosures made are the examples of Ciba-Geigy (Switzerland, chemicals):

> "Regarding solutions to individual environmental challenges, we will continue to develop appropriate technologies in-house. Pilot trials for a wastewater treatment bioreactor from our environmental engineering group have shown success in biodegrading previously undegradable chemicals. Two large scale applications ... will prove the efficacy of this approach ..."

or BP (United Kingdom, petroleum):

> "BP Oil has formed a new unit to integrate engineering and research resources more closely with the needs of the business. A major part of the research programme is the study of fuel formulations and changes in engine design to achieve a cost-effective reduction in road vehicles' exhaust emissions. We are participating in several oil and motor industry programmes that are looking into key environmental issues."

42. The majority of the disclosures made referred to developments in products. Particularly common were references to motors, engines or associated emissions. The phasing out of CFCs was also found in a number of cases as were references to recycling and energy use. Far less disclosures referred to production techniques, and those that did tended to refer to either emissions from production or simply the desire to reduce the environmental impacts of production methods.

C. Capital investment activities

43. Considerably less common than information on R & D was information on capital expenditures or investment activities. Only 31 per cent (63) of the sample provided a description of capital investment activities compared to the 48 per cent describing R & D activities. In addition, the evidence suggests that this is not an area where there has been an increase in the proportion of corporations disclosing information. There were also some very large differences in the rate of disclosures across the various industries. In particular, such information was very much more common in the petroleum industry than any other, with 74 per cent of the petroleum industry disclosing details of

capital investment activities. The second highest disclosure rate was only 47 per cent by the forestry industry while the lowest rate was 8 per cent in the case of motors.

44. As had been found for R & D disclosures, few corporations attempted to provide exhaustive information. Approximately two thirds of the disclosures made were concerned with the activities of only one or a limited number of divisions rather than the entire corporation and, reflecting this, the majority of the disclosures were found in the review of activities. In addition, information on planned expenditures were very rarely found, with 94 per cent of all disclosures referring only to activities of the current year. A similar proportion provided only examples of activities undertaken rather than attempting an exhaustive description of all of the environment-related capital investment activities of the corporation or the relevant sector of the corporation. Most of the disclosures made were very brief, on average only one-eighth of a page long, as illustrated by Outokumpu (Finland, forestry):

> "In ferrochrome production, investments focused on equipment maintenance and measures to improve efficiency. Ongoing process and equipment development work aims at, for example, reducing energy consumption, improving chromium yield and environmental protection."

45. With a few exceptions, the expenditure areas covered were also very limited. The most common descriptions referred to capital investment activities aimed at reducing emissions, most commonly emissions into the air followed by water-based emissions, followed by solid waste and general unspecified emissions. A significant number of the disclosures simply referred to investments undertaken to meet environmental regulations, aid pollution control or improve environmental protection.

D. Operating and production activities

46. The fourth type of activity to be described by a number of corporations was operating or production activities. While the dividing line between R & D disclosures and operating and production activities is sometimes unclear, the latter included only changes that have been implemented. On this basis, 28 per cent (57) of the corporations specifically disclosed information on their methods of operating or production techniques - either describing the environmental impact or, more commonly, describing changes in the methods employed, and an indication on the effects of these changes, as illustrated by the case of Kymmene (Finland, forestry):

> "In the pulp industry, all three pulp mills have abandoned the use of elemental chlorine except in one production line by changing over to using chlorine dioxide. This has substantially reduced emissions of chlorinated organic compounds (AOX)."

47. Again, as found for descriptions of other activities, the disclosures made almost without exception referred only to the activities of the current year rather than planned changes. They were typically also very brief discursive statements. In most cases they were contained in the review of activities and,

reflecting this, in approximately three quarters of all cases, they included activities in only one or a limited number of divisions. Almost without fail, only examples of changes were mentioned with no overall view being provided. As found in many of the other areas, the specific items that were most commonly found were information on: recycling and the increased use of recycled raw materials (especially common in the forestry and metals industries); emissions, especially into the air (relatively common in the chemicals and pharmaceutical industries); and descriptions of changes that reduced energy usage (again most common in the metals and chemicals industries).

E. Remediation activities

48. The final area of operations is that of remediation work. This was the least common of the five areas, being disclosed by only 14 per cent of the sample. As discussed with reference to information on financial expenditures, remediation disclosures tend to differ from other types of environmental disclosures. The majority of the disclosures were made by North American corporations. Rather than locating the information in the review of activities, these corporations tended to use either the notes to the accounts or the management discussion. The reason for this appeared to be that the North American corporations very clearly linked these disclosures to related disclosures concerned with the Superfund law. In these cases, they either referred only to activities under Superfund or referred to all activities including those under Superfund, as illustrated by Eaton Corporation (motors, United States of America):

> "The Company currently is involved with a number of waste disposal sites as to which it has been named a potentially responsible party (PRP) under the Federal Superfund law. ... The Company is also involved in remedial response and voluntary environmental cleanup expenditures at a number of other sites which are not the subject of any Superfund law proceeding, including certain of its currently or formerly owned plants."

49. The types of disclosures made by the non-North American corporations are far more varied. They tended to report remediation activities in the review of activities and, in most of these cases, only provided examples of actions undertaken by specific divisions. As such, the amount of detail provided and the specific areas covered varied considerably, although there was a greater tendency to go into the specifics of particular examples of remediation, as exemplified by BHP (metals, Australia):

> "Environmental programmes in place across the Company include ... the rehabilitation and beautification of sites. On the east coast of Australia, for example, the restoration by BHP of a 120-metre-high forested dune at the Bridge Hill Ridge mineral sand mining project won the 1991 Environmental Excellence Award of the New South Wales Minerals Industry. The ridge is now an extension of the Myall Lakes National Park."

IV. DISCLOSURES OF OTHER ENVIRONMENTAL INFORMATION

50. A wide variety of other types of information were disclosed by a number of the corporations. These disclosures tended to reflect the concerns of particular industries or countries and, overall, no areas were disclosed by more than a relatively small number of corporations. Examples include: descriptions of environmental prizes received or awarded; communications to local communities, schools or interest groups; environmental charities supported by either financial donations or through employee involvement; and the support of various conservation projects either related to the specific concerns of the corporation, as in the case of the forestry industry, or various overseas conservation projects, such as preventing further advancement of African deserts, which are more in the nature of charitable donations. These disclosures varied very significantly in terms of the quantity of information provided, from a very brief sentence or two to, in a small number of cases, prominent disclosures by several pages of descriptions and photos.

51. The information that is perhaps of most interest falls into four categories: sustainable development; technology transfers; environmental audits; and the training of employees. Information on all of these is reported in table 7.

Table 7. Other information

Items disclosed	All Corporations (203)		Chemicals (38)		Forestry (17)		Industrial Equipment (25)		Metals (40)		Motors (36)		Petroleum (19)		Pharmaceuticals (28)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Number	57	28	18	47	10	59	3	12	7	18	7	19	6	32	6	21
Sustainable development																
Total number	14	7	3	8	5	29	1	4	3	8	-	-	-	-	2	7
Of which:																
Policy described	12	6	3	8	4	24	1	4	3	8	-	-	-	-	1	4
Activities described	4	2	1	3	2	12	-	-	-	-	-	-	-	-	1	4
Of which																
All of the Corporation	12	75	3	75	3	50	1	100	3	100	-	-	-	-	2	100
Only part of the Corporation	4	25	1	25	3	50	-	-	-	-	-	-	-	-	-	-
Technology transfer																
Total number	13	6	4	11	1	6	1	4	1	3	3	8	2	11	1	4
Of which:																
All of the Corporation	4	31	-	-	-	-	-	-	1	100	2	67	-	-	1	100
Only part of the Corporation	9	69	4	100	1	100	1	100	-	-	1	33	2	100	-	-
Environmental audits																
Total number	24	12	9	24	5	29	2	8	2	5	3	8	3	16	1	4
Of which:																
All of the Corporation	18	75	7	78	4	80	1	50	1	50	1	50	3	100	1	100
Only part of the Corporation	6	25	2	22	1	20	1	50	1	50	1	50	-	-	-	-
Training activities																
Total number	21	10	6	16	3	18	-	-	3	8	2	6	3	16	4	14
Of which:																
All of the Corporation	17	81	5	83	2	67	-	-	3	100	2	100	2	67	3	75
Only part of the Corporation	4	19	1	17	1	33	-	-	-	-	-	-	1	33	1	25

Note: Figures in parenthesis below the column headings indicate total number of corporations responding to survey.

A. Sustainable development

52. Looking, firstly, at sustainable development, the results show that only 7 per cent (14) of the corporations disclosed any information. This figure is perhaps surprisingly low given the vital importance attached to this concept by most environmentalists. As might be expected, the industry that is most clearly reliant upon a renewable raw material source, namely the forestry industry, is the industry where disclosures were most common. Thus, 29 per cent (5) of these corporations disclosed either a statement confirming that their forestry management techniques were designed to ensure sustainable development or they described the actions undertaken to comply with this principle. While the forestry industry was the one where such disclosures were most common, they also appeared in a small number of other reports, as illustrated by one of the more succinct but relatively informative policy statements, that of DSM (Netherlands, chemicals):

> "The principle underlying the Group's strategy is that activities should fit in with the basic corporate objective of ensuring continuity. This means that the activities should not only be profitable, but also sustainable. This is reflected in DSM's efforts to develop new products and processes with a minimal environmental impact and in the company's involvement in the area of recycling."

53. The majority of the non-forestry corporations that disclosed any information in this area described their support for the "Business Charter for Sustainable Development" which is being promulgated by the International Chamber of Commerce. In most cases this was limited to a very brief statement that the Charter had been signed, although a few corporations went a little further and described in qualitative terms the policy implications of the Charter.

B. Technology transfers

54. Slightly fewer corporations disclosed any information on technology transfers, namely only 6 per cent (13), with the proportion being in excess of 10 per cent only in the case of the chemicals and petroleum industries. Although this is a very few, it is difficult to succinctly describe the disclosures made as the subject-matters discussed varied quite significantly. In no case did the disclosures reflect what might be traditionally thought of as technology transfers, namely, the transfer of knowledge from corporations in developed countries to governments, researchers or corporations in developing countries. Instead the disclosures made generally referred to unspecified "authorities, experts and associations" or, more commonly, trade associations or similar. For example, among those projects and initiatives described were the European chemical industry programme for obtaining information on the environmental impacts of chemicals, the European research programme into processing used aluminium packaging, and the United States Council for Automotive Research. In these cases the disclosures were limited to a statement that the corporation belonged to the group followed by a brief description of the objectives or activities of the group. Not only were the disclosures made generally brief, but in 67 per cent of the cases, the disclosures were located in the review of activities and referred to actions taken by only one division

of the corporation. Therefore, it was not possible to gain any idea of the position of the rest of the corporation or any idea of the overall policy of the entire corporation, if any.

C. Environmental auditing

55. Rather, more corporations disclosed information on environmental auditing, with the rate varying from a low of 4 per cent for pharmaceutical to a high of 29 per cent for the forestry industry, resulting in an overall disclosure rate of 12 per cent. However, while the clear majority of disclosures related to the entire corporation rather than to only one or a limited number of divisions, a significant proportion of the disclosures made described specific examples of audits undertaken rather than describing all the activities in this area. In addition, most of the disclosures made either simply stated that environmental audits were undertaken or described the numbers undertaken, rather than describing such features as the methods employed or the people conducting audits, although it is clearly possible to give such information, as illustrated by Solvay (Belgium, chemicals):

> "Launched in 1991 under the "RESPONSIBLE CARE" programme, SAFETY AUDITS of all Group production facilities, using the ISRS (International Safety Rating System) methodology, have been developed. Audits were carried out at eight plants in 1992 and the number of audits in 1993 is likely to be significantly higher. For site managers, the results of such audits are a precious and detailed tool in drawing up action programmes."

56. Likewise, the results of the audits or the actions undertaken as a consequence of the audits were very rarely disclosed. When this type of information was disclosed it tended to be couched in fairly vague terms as illustrated by Roche (Switzerland, pharmaceutical):

> "The 31 safety and environmental audits conducted during the year at Group companies in Switzerland, South-East Asia, Australia and Latin America also contributed to the high standards maintained by Roche in this area. On the whole the results of these systematic checks were good, showing that safety and environmental issues are given a high priority by management of our affiliates."

D. Employee training

57. Information on training in environmental matters was disclosed by only 10 per cent (21) of the corporations. In most cases, these were very short statements (on average less than one sixth of a page long) covering the entire corporation and, in approximately one third of the cases, they appeared in the employee section of the annual report. Some industry differences were apparent with, for example, petroleum corporations talking of training to cope with oil spillages and chemical corporations tending to describe training in safety matters. However, in virtually all cases, it was only reported that such training took place and often little or no detail was provided, as typified by

Beiersdorf (Germany, pharmaceutical) who stated that "Training courses for managers and employees were held on environmental protection".

V. CONCLUSIONS AND RECOMMENDATIONS

58. When the findings of this survey are compared to those of the earlier survey there are causes for both pleasure and disappointment. It is particularly noteworthy to find that more and more corporations appear to be aware of the fact that they have a duty to protect the environment and that their environmental impacts are of legitimate concern to shareholders. Thus, the overall level of disclosure has increased and, at least among the sample corporations, those that report nothing about the environment are now in a very small minority.

59. However, while the proportion of corporations disclosing some information has increased, there is little or no evidence to suggest that the overall quality of the information provided has increased. The vast majority of the disclosures made can be described as being discursive, often self-congratulatory statements covering parts of the corporation only and describing the activities of the current year in often very brief terms. Thus, the information that was most commonly provided was policies of the corporation and descriptions of the environmental impacts of its products. Quantitative information on impacts through such means as quantification of emission levels was generally a phenomena only of the reports from corporations in western Europe and, even here, was not provided by the majority of corporations. In addition, when information was disclosed, it tended to be examples only, often only for individual divisions, plants or types of emissions. In this context it is perhaps also noteworthy that none of the sample corporations mentioned the issue of benchmarking, an idea that is receiving increasing attention in this field. However, in contrast, it is perhaps encouraging to see a number of corporations providing qualitative information on their environmental impacts, particularly via statements detailing the extent to which they meet relevant legislation.

60. Other areas which are subject to particular concern by environmentalists and other interested groups are corporate activities aimed at achieving sustainable development and the issue of technology transfers. Here, information is very rarely provided and, where it is provided, it tends again to be discursive and incomplete.

61. Current recommendations of the Working Group on environmental disclosures 4/ detail particular environmental topics which should be mentioned, many of which are discussed within this report. However, as this report and the previous report both found, the extent of environmental disclosure is somewhat disappointing. The Group may wish to conduct further studies into ways and methods to encourage more comprehensive disclosures by corporations.

62. This report has not dealt with the issue of benchmarking since none of the sample corporations mentioned the issue. Furthermore, guidelines prepared by the Working Group are of a general nature, without specific guidelines or benchmarks which set specific minimum disclosure standards. Items which could be disclosed include information on the actual volume and quality of wastes that

are released into the environment and the relevant legislative guidelines concerning these wastes, and measures taken by the corporation to meet these guidelines. Further work in this area could be justified given that guidelines as issued by environmental agencies are crucial to an environmentally clean world. As corporations are not required to publicly report upon compliance with such guidelines, the guidelines are less effective and the public is not aware of important information. Accounting disclosure should be more closely tied to relevant environmental legislation.

Notes

1/ International Accounting and Reporting Issues: 1991 Review (United Nations publication, Sales No. 92.II.A.8), pp. 97-98.

2/ International Accounting and Reporting Issues: 1992 Review (United Nations publication, Sales No. 93.II.A.6), pp. 77-107.

3/ International Accounting and Reporting Issues: 1991 Review (United Nations publication, Sales No. 92.II.A.8), pp. 97-98.

4/ Ibid.

Annex I

CORPORATIONS INCLUDED IN THE SURVEY

Corporation	Country	Year-end	Turnover (Millions of domestic monetary units)
Chemicals			
Air Products & Chems.	USA	9/92	3 217
Akzo	Netherlands	12/92	16 850
Asahi Chemical Industry	Japan	3/92	1 305 888
Asahi Glass	Japan	12/92	1 316 789
BASF	Germany	12/92	44 522
Bayer	Germany	12/92	41 195
BOC	UK	9/92	2 863
Burmah Castrol	UK	12/92	2 387
Ciba-Geigy	Switzerland	12/92	22 204
Courtaulds	UK	3/93	2 074
Dainippon Ink & Chemicals	Japan	3/93	889 057
DSM	Netherlands	12/92	8 907
E.I. Du Pont De Nemours	USA	12/92	37 799
Enterprise Miniere & Chimique	France	12/92	15 719
Ethyl	USA	12/92	1 693
FMC	USA	12/92	3 974
WR Grace	USA	12/92	5 518
Hercules	USA	12/92	2 865
Hoechst	Germany	12/92	45 870
Huls	Germany	12/92	10 270
ICI	UK	12/92	12 061
L'Air Liquide	France	12/92	31 819
Lyondell Petrochem.	USA	12/92	4 805
Mitsubishi Kasei	Japan	3/92	1 216 131
Monsanto	USA	12/92	7 763
Nobel Industries	Sweden	12/92	21 481
Norsk Hydro	Norway	12/92	58 062
PPG Industries	USA	12/92	5 814
Rhone Poulenc	France	12/92	81 709
Rohm & Haas	USA	12/92	3 063
Sasol	South Africa	6/92	7 854
Sherwin-Williams	USA	12/92	2 748
Showa Denko	Japan	12/92	508 751
Solvay	Belgium	12/92	254 470
Sumitomo Chemical	Japan	12/92	1 018 271
Tosoh	Japan	3/92	389 875
Toyobo	Japan	3/92	568 879
Union Carbide	USA	12/92	4 872

Corporation	Country	Year-end	Turnover (Millions of domestic monetary units)
Forest and paper products			
Boise Cascade	USA	12/92	3 716
Fletcher Challenge	New Zealand	6/92	10 019
Georgia-Pacific	USA	12/92	11 847
James River	USA	12/92	4 728
Jujo Paper	Japan	3/92	392 131
Kymmene	Finland	12/92	13 607
Mead	USA	12/92	4 703
Mo Och Domsjo (MoDo)	Sweden	12/92	15 759
Noranda	Canada	12/92	8 538
Oji Paper	Japan	3/93	449 976
Repola	Finland	12/92	23 752
Saint Louis	France	12/92	35 271
SCA	Sweden	12/92	32 137
Stone Container	USA	12/92	5 521
Stora	Sweden	12/92	46 895
Union Camp	USA	12/92	3 064
Weyerhaeuser	USA	12/92	9 219
Industrial and farm products			
Atlas Copco	Sweden	12/92	16 007
BICC	UK	12/92	3 388
Black & Decker	USA	12/92	4 790
BTR	UK	12/92	8 841
Caterpillar	USA	12/92	10 194
Cummins Engine	USA	12/92	3 749
Daikin Industries	Japan	3/93	429 313
Deere	USA	10/92	5 723
Deutsche Babcock	Germany	9/92	7 644
Dresser Industries	USA	10/92	3 797
Ebara	Japan	3/93	413 887
Hitachi Zosen	Japan	3/92	398 017
Ingersoll-Rand	USA	12/92	3 783
Ishikawajima-Harima Heavy Ind.	Japan	3/92	1 053 708
Kawasaki Heavy Industries	Japan	3/92	1 066 038
Komatsu	Japan	3/93	869 928
Fried. Krupp	Germany	12/92	23 157
Kubota	Japan	3/92	909 188
Linde	Germany	12/92	4 031
Mannesmann	Germany	12/92	28 017
Mitsubishi Heavy Industries	Japan	3/92	2 789 870
Sulzer	Switzerland	12/92	6 801
Sumitomo Heavy Industries	Japan	3/93	483 924

Corporation	Country	Year-end	Turnover (Millions of domestic monetary units)
Tenneco	USA	12/92	13 139
Trelleborg	Sweden	12/92	23 591
Metals and metal products			
Alcan Aluminium	Canada	12/92	US$ 7 596
Aluminium Co of America	USA	12/92	9 492
Alusuisse Lonza	Switzerland	12/92	6 547
AMAX	USA	12/92	3 698
Arbed	Luxembourg	12/92	188 511
Bethlehem Steel	USA	12/92	4 008
BHP	Australia	5/92	14 447
British Steel	UK	4/93	5 803
Carnaudmetalbox	France	12/92	24 830
Cockerill Sambre	Belgium	12/92	167 687
Crown Cork & Seal	USA	12/92	3 781
Daido Steel	Japan	3/92	299 061
Degussa	Germany	9/92	12 815
Gillette	USA	12/92	5 163
Hoogovens	Netherlands	12/92	7 722
Iscor	South Africa	6/92	8 616
Johnson Matthey	UK	3/92	1 733
Kawasaki Steel	Japan	3/93	1 092 099
Kobe Steel	Japan	3/92	1 455 407
Masco	USA	12/92	1 657
McDermott Internat.	USA	3/93	3 173
Metallgesellschaft	Germany	9/92	25 558
Mitsubishi Materials	Japan	3/92	1 165 863
Nippon Light Metal	Japan	3/92	673 380
Nippon Steel	Japan	3/92	3 229 647
Nisshin Steel	Japan	3/92	478 748
NKK	Japan	3/92	1 931 481
Outokumpu	Finland	12/92	15 125
Pechiney	France	12/92	65 374
Preussag	Germany	9/92	24 474
Sandvik	Sweden	12/92	17 217
SKF	Sweden	12/92	26 649
Steel Authority of India	India	3/92	935 989
Sumitomo Electric Industries	Japan	3/92	1 157 239
Sumitomo Metal Industries	Japan	3/92	1 818 089
Thyssen	Germany	9/92	36 562
Tostem	Japan	3/92	482 834
Tyco Laboratories	USA	6/92	3 067
Union Miniere	Belgium	12/92	119 101
VIAG	Germany	12/92	24 311

Corporation	Country	Year-end	Turnover (Millions of domestic monetary units)
Motor vehicles and parts			
BMW	Germany	12/92	31 241
Chrysler	USA	12/92	36 897
Daihatsu Motor	Japan	3/92	874 853
Daimler Benz	Germany	12/92	98 549
Dana	USA	12/92	4 872
Eaton	USA	12/92	3 869
Fiat	Italy	12/92	59 106 000
Ford	USA	12/92	100 132
Fuji Heavy Industries	Japan	3/92	1 040 402
General Motors	USA	12/92	132 429
GKN	UK	12/92	2 526
Hino Motors	Japan	3/92	637 479
Honda	Japan	3/93	4 132 435
Isuzu Motors	Japan	12/92	15 250
Lucas Industries	UK	7/92	2 253
MAN	Germany	6/92	19 170 951
Mazda	Japan	3/92	2 722 469
Navistar International	USA	10/92	3 875
Nippondenso	Japan	12/92	1 523 779
Nissan Diesel Motor	Japan	3/92	377 219
Nissan Motors	Japan	3/93	6 197 599
Nissan Shatai	Japan	3/92	552 862
Paccor	USA	12/92	2 577
Peugeot	France	12/92	155 431
Renault	France	12/92	179 449
Robert Bosch	Germany	12/92	34 432
Suzuki Motor	Japan	3/93	1 259 104
Toyoda Automatic Loom Works	Japan	3/92	583 437
Toyota	Japan	6/92	10 163 376
TRW	USA	12/92	8 311
Valeo	France	12/92	20 645
Varity	USA	1/93	3 375
Volkswagen	Germany	12/92	85 403
Volvo	Sweden	12/92	83 002
Yamaha Motor	Japan	3/93	676 773
ZF Friedrichshafen	Germany	12/92	5 636
Petroleum refining			
British Petroleum	UK	12/92	33 250
Elf Aquitaine	France	12/92	200 563
Exxon	USA	12/92	115 672
Indian Oil	India	3/92	2 074 506

Corporation	Country	Year-end	Turnover (Millions of domestic monetary units)
Kerr McGee	USA	12/92	3 382
Mitsubishi Oil	Japan	3/92	1 112 289
Mobil	USA	12/92	63 564
Nippon Oil	Japan	3/92	2 825 567
Petrobras	Brazil	12/92	231 394 592
Petro Canada	Canada	12/92	4 551
Petrofina	Belgium	12/92	537 294
Petroleos de Venezuela (PDVSA)	Venezuela	12/92	US$ 21 426
Pioneer International	Australia	6/92	5 134
Repsol	Spain	12/92	1 852 788
Royal Dutch Shell	Netherlands/UK	12/92	UK£ 55 026
Statoil	Norway	12/92	79 430
Texaco	USA	12/92	36 812
Total	France	12/92	136 608
Veba Oel	Germany	12/92	65 419
<u>Pharmaceuticals, soaps and cosmetics</u>			
Abbott Laboratories	USA	12/92	7 852
American Cyanamid	USA	12/92	5 268
American Home Products	USA	12/92	7 874
Astra	Sweden	12/92	16 272
Avon Products	USA	12/92	3 810
Beiersdorf	Germany	12/92	4 552
Boehringer Ingelheim	Germany	12/92	5 330
Colgate Palmolive	USA	12/92	7 007
Eli Lilly	USA	12/92	6 167
E. Merck	Germany	12/92	4 963
Glaxo	UK	6/92	4 096
Henkel	Germany	12/92	14 101
Johnson & Johnson	USA	12/92	13 753
Kao	Japan	3/92	729 885
L'Oreal	France	12/92	37 568
Procordia	Sweden	12/92	39 867
Reckitt & Colman	UK	12/92	1 904
Roche	Switzerland	12/92	12 953
Schering	Germany	12/92	6 267
Schering Plough	USA	12/92	4 056
Shionogi	Japan	3/92	225 578
Shiseido	Japan	3/93	561 548
SmithKline Beecham	UK	12/92	5 219
Takeda Chemical	Japan	3/92	709 686
Upjohn	USA	12/92	3 639
Warner Lambert	USA	12/92	5 598
Wellcome	UK	8/92	1 762
Yamanouchi Pharm.	Japan	3/92	357 472

Annex II

SUMMARY BY COUNTRY OF DOMICILE FOR THE CORPORATIONS IN THE SURVEY

	All Corporations (203)		Chemicals (38)		Forestry (17)		Industrial Equipment (25)		Metals (40)		Motors (36)		Petroleum (19)		Pharmaceuticals (28)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
United States	57	28	12	32	7	41	7	28	8	20	9	25	4	21	10	36
Japan	51	25	8	21	2	12	9	36	11	28	14	39	2	11	5	18
Germany	25	12	4	11	-	-	4	16	5	13	6	17	1	5	5	18
United Kingdom	15	7	4	11	-	-	2	8	2	5	2	6	1	5	4	14
France	12	5	3	8	1	6	-	-	2	5	3	8	2	11	1	4
Sweden	11	5	1	3	3	18	2	8	2	5	1	3	-	-	2	7
Belgium	4	2	1	3	-	-	-	-	2	5	-	-	1	5	-	-
Netherlands	4	2	2	5	-	-	-	-	1	3	-	-	1	5	-	-
Switzerland	4	2	1	3	-	-	1	4	1	3	-	-	-	-	1	4
Canada	3	1	-	-	1	6	-	-	1	3	-	-	1	5	-	-
Finland	3	1	-	-	2	12	-	-	1	3	-	-	-	-	-	-
Rest of World	14	7	2	5	1	6	-	-	4	10	1	3	6	32	-	-

Note: Figures in parenthesis below the column headings indicate total number of corporations responding to survey.